



ELSEVIER

Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/midw

Birth-related, psychosocial, and emotional correlates of positive maternal–infant bonding in a cohort of first-time mothers

Cara Bicking Kinsey, MS, RNC-NIC (Doctoral Candidate, MPH Candidate)^{a,b,*},
 Kesha Baptiste-Roberts, PhD, MPH (Assistant Professor)^{a,b}, Junjia Zhu, PhD
 (Assistant Professor)^b, Kristen H. Kjerulff, PhD, MA (Professor)^{b,c}

^a College of Nursing, The Pennsylvania State University, USA

^b College of Medicine, Department of Public Health Sciences, The Pennsylvania State University, USA

^c College of Medicine, Department of Obstetrics and Gynecology, The Pennsylvania State University, USA

ARTICLE INFO

Article history:

Received 21 October 2013

Received in revised form

28 January 2014

Accepted 14 February 2014

Keywords:

Maternal–infant bonding

Postpartum Bonding Questionnaire

Reliability

Validity

ABSTRACT

Objective: to describe the development of a shortened 10-item version of the Postpartum Bonding Questionnaire (S-PBQ) and examine the relationship between birth-related, psychosocial, and emotional factors and maternal–infant bonding.

Design: cross-sectional interview study.

Setting: women having their first baby in Pennsylvania, USA.

Participants: we interviewed 3005 women in their third trimester and at one month post partum who were enrolled in the First Baby Study.

Measurements and findings: for the S-PBQ, we completed factor analysis and examined instrument properties. We examined the relationship between birth-related, psychosocial, and emotional factors and maternal–infant bonding using adjusted linear regression models. The S-PBQ demonstrated acceptable internal reliability (Cronbach's $\alpha=0.67$). Analysis revealed a socio-economic bias such that women who were older, more educated, not living in poverty, and married reported lower bonding scores. Maternal–infant bonding was significantly negatively correlated with maternal stress, maternal pain, and post partum depression, and positively correlated with partner support with the infant, and social support.

Key conclusions and implications for practice: For researchers who wish to measure maternal–infant bonding but are in need of a relatively short scale, the 10 item S-PBQ may be a useful alternative to the original version. However, it is important that researchers measuring maternal–infant bonding also investigate socio-economic bias in their studies and adjust for this effect as needed. Our results also indicate that clinicians should be aware of life stressors that may impact the maternal–infant relationship, in order that intervention may be provided to improved health outcomes for mothers, infants, and families.

© 2014 Elsevier Ltd. All rights reserved.

Introduction

A woman's transition to the role of mother is one of the most significant developmental processes in the human experience (Brockington, 1996). Although most women successfully develop a healthy relationship with their infants, a minority show difficulty with the process. These impairments in maternal–infant bonding are associated with depressive symptoms (Reck et al., 2006) and can lead to long-term complications for mother and infant, including abuse and neglect (Brockington, 1996).

The original focus of bonding theory, as described by Klaus and Kennell in 1976, was to promote early physical contact between a mother and her newborn infant. The theory was later revised to suggest that although close physical contact is desired after birth, it is not necessary for the development of a health bond (Klaus and Kennell, 1982; Kennell and Klaus, 1998). In fact, difficulty with maternal–infant bonding may stem from either physical separation or a lack of emotional availability of the mother (Bicking Kinsey and Hupcey, 2013). Although there is research supporting the idea that birth circumstances may have a positive or negative impact on maternal–infant bonding, much of the research findings are contradictory (Bicking Kinsey and Hupcey, 2013). Furthermore, the psychosocial and emotional factors that may impact a woman's ability to form a healthy bond with her infant have been examined only to a limited extent. More research is needed to

* Correspondence to: The Pennsylvania State University, College of Nursing, 90 Hope Drive, 1300 ASB/A110, Hershey, PA 17033, USA.

E-mail address: cbx935@psu.edu (C. Bicking Kinsey).

identify risk factors for impaired maternal–infant bonding beyond the obstetric circumstances at birth.

Furthermore, measurement of a complex concept such as maternal–infant bonding can present challenges, and there are many inconsistencies in the way bonding is currently measured. A recent concept analysis defined maternal–infant bonding as ‘an affective state of the mother; maternal feelings and emotions toward the infant are the primary indicator of maternal–infant bonding’ (Bicking Kinsey and Hupecey, 2013). Although behavioural observation is sometimes used to examine maternal–infant bonding, Bicking Kinsey and Hupecey’s (2013) concept analysis concluded that limited observation of maternal behaviour with the infant did not distinguish the state of a mother’s bond with her infant from other related concepts such as maternal confidence. Therefore, the authors suggested that maternal–infant bonding should be measured using maternal self-report of emotions regarding her infant (Bicking Kinsey and Hupecey, 2013).

Instruments that examine a mother’s emotional response to her infant via self-report are available. Most notable is the Postpartum Bonding Questionnaire (PBQ), developed by Brockington and colleagues. The PBQ is a 25-item screening questionnaire designed to identify women who are at risk for mother–infant relationship disorders (Brockington et al., 2006) and has been validated in both clinical and research settings (Brockington et al., 2006; Wittkowski et al., 2007, 2010; van Bussel et al., 2010). A cut-off score was established for each validated factor to optimise identification of women at risk for bonding impairment (Brockington et al., 2006). A shortened 22-item version was also developed by Wittkowski et al. (2010) with a three factor solution while Reck et al. (2006) developed a 16-item shortened version in the German language.

Another available instrument for measuring the maternal emotional response to the infant is the Mother-to-Infant Bonding Scale (MIBS) developed by Taylor et al. (2005). The MIBS is an 8-item questionnaire that asks women to rate their feelings for their infant in response to statements of simple emotions (i.e. loving; protective). The MIBS was deemed suitable for use in the general population; however, the authors suggest that certain statements (i.e. dislike, resentment) may not uniquely measure maternal–infant bonding.

Although these instruments for measurement of maternal–infant bonding exist, some practical issues still remain. As a 25-item or 22-item questionnaire, the PBQ was deemed too long to include as a part of our large research study, and the 16-item version was not developed in the English language. Furthermore, the MIBS, although short, may be an overly simplified measure of maternal emotion, as it correlated highly with maternal mood (Taylor et al., 2005). We therefore sought to develop an instrument that would adequately measure variation in maternal–infant bonding in the general population while remaining short enough for practical inclusion in a large survey research study.

The aim of our report was to describe the use of a shortened 10-item version of the PBQ (S-PBQ), which was administered as part of our large, longitudinal cohort study. We also aimed to examine the relationship between birth-related factors, psychosocial factors, and emotional factors and maternal–infant bonding in our population of women having their first baby.

Methods

Participants and procedure

The present study is a large prospective cohort study, the First Baby Study (FBS). The FBS was designed to investigate the association between mode of first birth and subsequent child-bearing. Women ages 18–35 who were expecting their first, singleton birth, spoke English or Spanish, and were residents of

Pennsylvania, USA were enrolled. Recruitment included both active and passive methods with the majority of participants recruited through childbirth education classes (42%), hospital-based advertising such as hospital tours, website posting, and flyers (21%) and low-income clinics or community centres (14%). Enrolment occurred between January 2009 and April 2011. The study was approved by the Institutional Review Board at participating study hospitals and written informed consent was obtained from each participant. After completing telephone interviews at two time points: prior to first birth (at 30 weeks gestation or later) and one month after birth, 3006 women were enrolled in the study. Further information about the FBS recruitment and sampling can be found elsewhere (Kjerulff et al., 2013).

Measures

Sociodemographic variables were measured during the baseline interview including education, poverty status, marital status, maternal age, race, and ethnicity. Poverty was measured using the US Census Bureau classification system to categorise participants based on household income and family composition – poverty, near poverty and not poverty. Those with household incomes $\geq 200\%$ above the threshold are classified as ‘not poverty’, those with household incomes that are 100–200% of the poverty threshold are ‘near poverty’, and those with household incomes $< 100\%$ of the poverty threshold are classified as ‘poverty’. For 205 women, regression methods were used to impute missing income values and create a poverty status category.

Additional variables including mode of birth, newborn birth complications, amount of time the infant roomed-in during the post partum hospital stay, maternal-report of infant colic, breast feeding status, quality of the relationship with the partner or significant other, and maternal report of physical pain, were measured during the 1-month post partum interview. Newborn birth complications included signs of respiratory distress or airway obstruction, fever or treatment with antibiotics, pneumothorax, meconium stained amniotic fluid, preterm birth, infection, nuchal cord, hypothermia, bruising, broken clavicle, shoulder dystocia, hip dysplasia, hypoxic-ischemic encephalopathy (HIE), haematoma, or hypoglycemia. The quality of the woman’s relationship with her partner was measured by asking, ‘Please indicate the degree of happiness, all things considered, of your relationship with your partner’ and responses ranged from ‘Extremely unhappy’ to ‘Perfect’. The variable was then categorised into three types: women who reported they were ‘Extremely happy’ or ‘Perfect’, those who were ‘Very happy’ to ‘Extremely unhappy’, and those who reported that they did not have a partner or significant other.

At the one month post partum interview participants were administered several scales including:

The *Psychosocial Hassles Scale* (Misra et al., 2001), is an 11-item instrument which measures perceived maternal stress (from ‘no stress’ to ‘severe stress’) due to common stressors, such as ‘money worries like paying bills’. In response to pilot testing results, we modified several items to be more appropriate for the study population and added an item, ‘Problems with the baby’, for a total of 12 items. Internal reliability was acceptable with a Cronbach’s alpha of 0.73. Higher scores indicate higher levels of maternal stress.

The *Edinburgh Postnatal Depression Scale* (EPDS) (Cox et al., 1987) is a 10-item screening questionnaire with established validity and reliability. We modified one of the original items: ‘The thought of harming myself has occurred to me’ was changed to ‘The thought of harming myself or others has occurred to me’. Cronbach’s alpha for this scale was 0.81. A total score was used with higher scores indicating increased probability of depression.

Download English Version:

<https://daneshyari.com/en/article/1084622>

Download Persian Version:

<https://daneshyari.com/article/1084622>

[Daneshyari.com](https://daneshyari.com)